

RESTORATION OF *EURYZYGOMA DUNENSE*.

BY HEBER A. LONGMAN, DIRECTOR, QUEENSLAND MUSEUM.

(Plates XXX-XXXI).

A restoration of *Euryzygoma dunense*, modelled by Mr. Wilfrid Morden, illustrated in Plates XXX-XXXI, has been placed on exhibition in the Queensland Museum. The remarkable cranium on which the genus *Euryzygoma* was established by the writer in 1921¹ was found at a depth of about 70 feet, during the sinking of a well on the property of Mr. G. A. F. Kleidon, Brigalow, Darling Downs. Supplementary material was recorded in 1929.² The specific name *dunense* was given by De Vis in 1887 to mandibles which he associated with *Nototherium*.

Although most attempts at reconstructions from incomplete remains are necessarily provisional and inadequate, the writer has pleasure in publishing illustrations of Mr. Morden's restoration of this very specialised and extraordinary marsupial. The outstanding features of the skull are the inferior lateral processes of the anterior part of the zygomata and the contours of the prominent suborbital platform. The maximum width of the skull (680 mm.) actually exceeds the maximum length (634 mm.), a most unusual characteristic among mammals. The lateral extensions relatively exceed the dependent processes of the malar in such Entelodonts as *Megacherus*, described by E. L. Troxell.³

In the original description, it was tentatively suggested that the extraordinary development of the zygomatic arches was associated with the presence of large cheek pouches, and no more satisfactory explanation of these curious processes can be made to-day. Although allied to species of *Nototherium*, *Euryzygoma* evidently represents a very specialised offshoot from this group of bulky herbivorous marsupials.

The restoration of the head was definitely built up on the actual contours of the fossil cranium (Plate XXX, fig. 2). Careful measurements were made and the proportions worked out in detail. The body contours are mainly based on the proportions of the skeletons of allied species of *Nototherium* with some reference to *Diprotodon*.

¹ 1921. Longman, Mem. Qld. Mus., vol. VII, pp. 65-80.

² 1929. Longman, Mem. Qld. Mus., vol. IX, p. 247.

³ 1920, Troxell, Amer. Journ. Sci., 4th ser., vol. 50, p. 433.

The restoration, which is approximately one-fifth natural size, involved much preliminary study and experiment, and warm appreciation is expressed of Mr. Morden's work.

PLATE XXX.

- Figure 1.—*Euryzygoma dunense*. Head of Restoration by Wilfrid Morden.
Figure 2.—*Euryzygoma dunense*. Anterior view of Brigalow cranium.

PLATE XXXI.

Euryzygoma dunense. Restoration by Wilfrid Morden in Queensland Museum.